

## Technical Manual Self Serve Pineapple Coring Machine



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# PIÑABAR OPERATION

The Piñabar is a machine for coring and spearing pineapples. A fully functional system for automatic peeling of a pineapple within a timeframe of 20 seconds. The feed and output of the pineapple is done manually, while the remaining operations are completely automatic.

## START-UP

The main switch of the Piñabar is located behind the front door. **NOTE: Once servicing is completed, close the door and lock it with the provided key.**

► Turn the switch by pushing the red tab up.

## STARTING POINT

After starting up, the machine needs to be in the starting point position. This is indicated by the green flashing light of the start button.

If the machine is not at its starting point the normal functions will not work properly; the operation system needs to know where the tongs are before a function can be selected.

Put the machine at the starting point:

► Press the start button. The green light start button will flash.

► After the machine is at the starting point, "Place Pineapple" will flash indicating machine is ready for use.

First the vertical axis (pressing-axis) is put in starting position. If, when pressing the start button, the press is not at the top the motor is started and will move the press up. Is the press already at the top then the turning axis will be put in the right position.

The turning axis makes a maximum of one turn, even if the switch on the In/Output is already operated. This is done to make sure the machine always gets the exact same position: the tongs are in the front.

When the machine has been turned off longer than 15 seconds, the machine requires a test run before it's ready for use again. Never place a pineapple or bucket in the machine when performing a test run.

## PINEAPPLE CYCLE

When all the conditions are met (starting position, empty waste bin, no running pineapple cycle) the lights flash "Place Pineapple" to indicate that a pineapple can be placed. "Place Bucket" will follow indicating a bucket needs to be placed at the bottom of the machine.

- ▶ Place pineapple and close the door  
"Place Pineapple" light burns continuously
  
- ▶ Place bucket  
"Place Bucket" light burns continuously
  
- ▶ Press the start button. (*Pineapple door is locked and machine starts operation.*)  
Pineapple door is locked and machine begins operation. "Start" light burns continuously
  
- ▶ End of cycle as pineapple drops into the bucket  
"Take Bucket" light flashes repeatedly
  
- ▶ Machine ready for next cycle  
"Place Pineapple" light flashes repeatedly

When the pineapple and bucket are in place (the lights burn continuously). The start button will begin to flash green. If the bucket is removed before pressing the start button, the "Place Bucket" light will flash again. Place the bucket again.

Make sure the sliding door is closed properly and then press the start button. The sliding door will be locked and the cycle will start, the start button light now burns continuously.

If, after pressing the start button, the bucket is removed the light will burn continuously, the program will run until the moment the fruit is above the output valve. Place a bucket.

The pineapple turns through the machine. As soon as the pineapple sensor doesn't see the pineapple (in the beginning of the movement) the "Place Pineapple" light is turned off.

During the rotation to the press position, the top and bottom of the pineapple is cut, resulting in a pineapple with the proper height.

The turning axis stops at the "pressing axis" in the back of the machine. Now the presser moves down and the pineapple is pushed through the rosette blade. The skin of the pineapple is cut loose and falls into the waste bin. The core is also cut and pushed out.

If no bucket is present at the output station, the program stops. Place a bucket, the machine will continue and the "Place Bucket" light flashes continuously.

If the pineapple holder is at the output position, the pineapple will fall into the bucket and the cycle is finished.

The light "Take Bucket" will start flashing to indicate that the bucket can be removed. If this is completed the "Take Bucket" and "Start" lights are turned off. The "Place Pineapple" light will start flashing indicating the machine is ready for the next cycle.

## WASTE BIN

After every cycle, the cut pineapple is registered by adding 1 to the counter. This is also the indicator for the number of skins in the waste bin (not visible in the display). If the maximum number of skins has been reached (standard set to 15) the orange light will start to flash. No pineapple can be cut at this time. The waste bin needs to be emptied. By opening the door, the count is automatically reset.



- ▶ Waste bin full. Start button light flashes orange.
- ▶ Open the machine door.
- ▶ Remove the waste bin from the machine.
- ▶ Empty the waste bin.
- ▶ Place the waste bin back into the machine.
- ▶ Close the machine door. Orange light is off. "Place Pineapple" light flashes.

**ATTENTION: THE WASTE BIN IS NOT CHECKED ON CONTENTS. IN CASE OF OPENING THE DOOR BUT NOT EMPTYING THE WASTE BIN, THE WASTE BIN COULD BECOME TOO FULL.**

## CLEANING INSTRUCTIONS

A trained operator is able to clean the Piñabar in approximately 15 minutes. Because of food safety and functional reasons, we recommend cleaning the machine once per day, at the end of each operational day.

- ▶ Open the door (See the manual in the door)

Please watch our online cleaning instruction video at: <https://youtu.be/mVWSjCIHqtU>  
Or search Youtube for Piñabar cleaning instructions at the Dutch Food Technology channel.

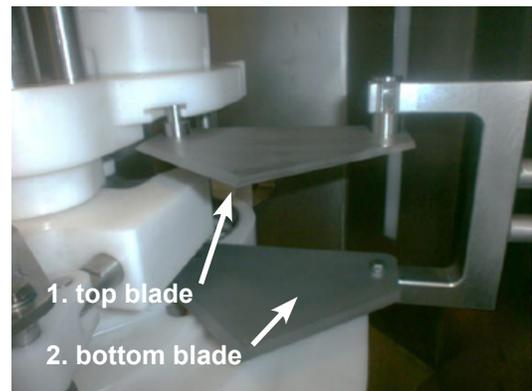
- ▶ Remove the removable parts from the machine (steps 1–7) as indicated below.

1. Turn the top blade counter-clockwise to remove.

**CAUTION: VERY SHARP BLADES!  
CUT-SAFE GLOVES RECOMMENDED.**

2. Turn the bottom blade counter-clockwise to remove.

**CAUTION: VERY SHARP BLADES!  
CUT-SAFE GLOVES RECOMMENDED.**

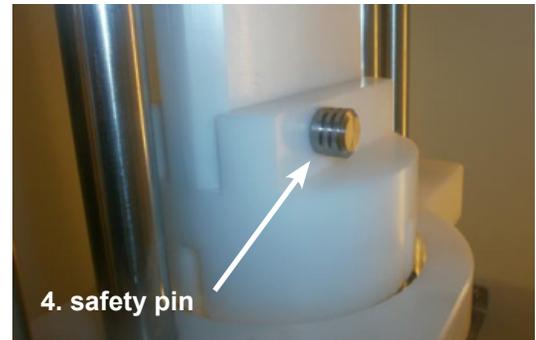


3. Remove the Rosette Blade from the cutout in the connecting unit. Pay attention to positioning and sharp side up. Be sure to lift blade up, by pressing it from the bottom. Then remove it.

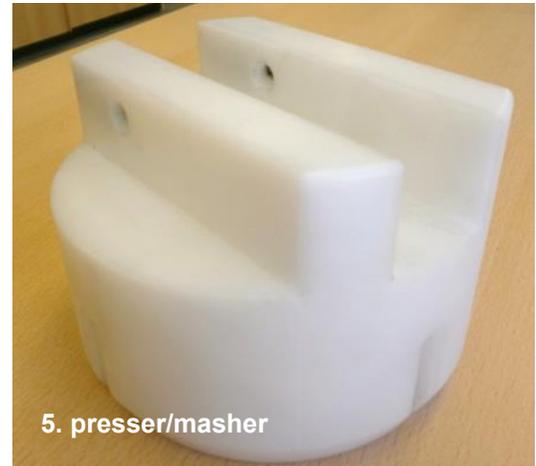
**CAUTION: VERY SHARP BLADES!  
CUT-SAFE GLOVES RECOMMENDED.**



4. Remove the safety pin.



5. Remove the presser/masher from the machine.



6. Twist the pineapple cup/holder from the valve.



7. Remove the safety valves from the machine.



8. Empty the waste bin (see page 3).
9. Clean machine with warm water and soap.
10. Removable parts can also be placed in dishwasher.
11. Now place the parts back into the machine in reverse order:
  - a. Place part 6 back into the machine. Make sure the two green dots are aligned over each other.
  - b. Place part 5, the presser/masher, into the machine and fix it with the safety pin (number 4) to the press unit.
  - c. Place part 3, the rosette blade into the cutout of the connecting beam. Pay attention to positioning and sharp side up.
  - d. Place part 2, the bottom blade into the machine. Place it in the cutout of the connecting beam. When placed, press the blade to lock it in correctly.
  - c. Place part 1, the top blade into the machine. Place it in the cutout of the connecting beam. When placed, press the blade to lock it in correctly. The top blade is marked with an inscription "mes boven".

In case of intermediate cleaning (not at the end of the day) the machine can be switched on with the main switch. Close the door and position the machine back to its starting position as indicated on page 1.

## **SOLVING ERRORS**

In case of an error, the red lights will flash, indicating machine is not in the starting position.

- ▶ Open the door.
- ▶ Remove pineapple from machine.
- ▶ Turn main switch to "OFF" and wait a minimum of 10 seconds.
- ▶ Turn main switch to "ON".
- ▶ The machine is reset and will return to the starting position.

## HOMING TROUBLESHOOTING

### HOMING CYCLE DOES NOT START (green light #3 flashes)

1. Check that **main** door is closed properly. The switch should connect and the door should be locked to ensure there is no gap.



2. Check if **pineapple** door is closed properly. Open and close to ensure the door is locked properly.

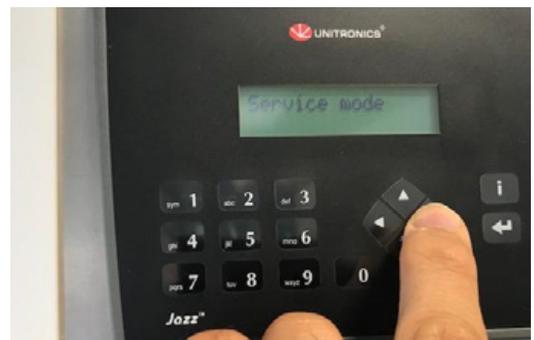
Press start button to see if issue is resolved.  
If problem persists, move on to the next step.



3. Unscrew the white front panel to see if all sensors register the pistons that are connected to the engines. If not in position the sensor won't be lit, and the homing cycle will be halted.



4. Using the Service Mode, the disk and presser can be put back to their starting positions. Select the Service Mode on the display by pressing the "▶" button until it appears.



## HOMING TROUBLESHOOTING (CONT'D)

5. Hold down both 7 and 9 together for a few seconds. You are in the Service Mode when the text in the display reads "Vertical Press Slowly".
6. The Blp at the top right of the display indicates the position of the sensors. An uppercase "B" indicates the disk is in its correct start position. An uppercase "I" indicates the presser is in its correct start position (top).
7. Select option "Find Disk Entrance Position."
8. Close the door and press start to operate the function. The disk will turn and make a full cycle.
9. Open the door, from menu select "Find Top Press Position."
10. Close the door and press start to operate the function. The presser will come down and make a full cycle.
11. Open the door and turn off the machine to exit the Service Mode.
12. Turn it back on and push the flashing start button to see if issue is resolved.



## CHANGING THE CLAW RINGS

(Set pineapple size on claw.)

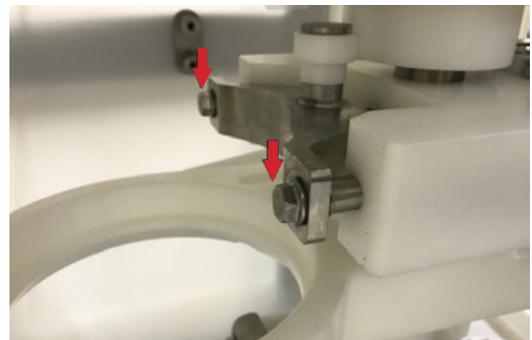
1. Open the door and leave/turn machine off.



2. Place a wooden part inside the claw. This will keep the claw open and ensure a tension-free removal of the rings.



3. Unscrew the bolts on the back of the claw.



4. Remove/add rings to increase/decrease the claw size.

Size 5: 0 rings

Size 6: 1 ring

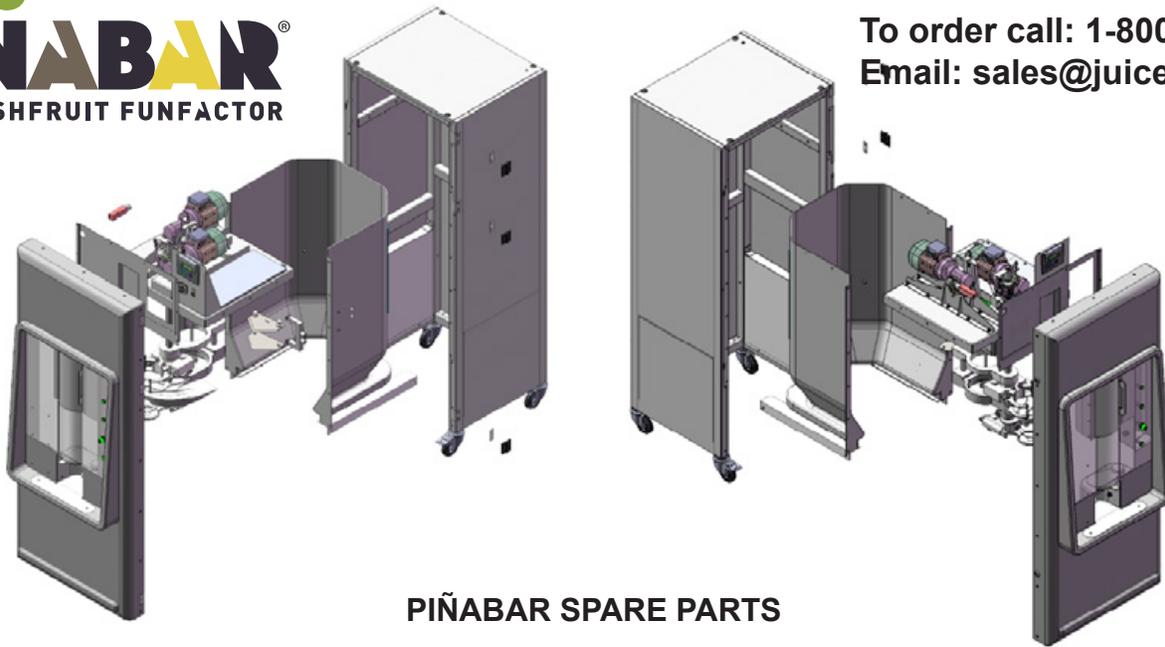
Size 7: 2 rings

Size 8: 3 rings



5. Screw fixture back on and take out the wooden part.





**PIÑABAR SPARE PARTS**

DESCRIPTION	SIZE	PART NUMBER	DESCRIPTION	SIZE	PART NUMBER
Safety Valve.....		74333312-01-016		T6S .....	74333312-01-306
Ring Safety Valves .....		74333312-08-031		T7 .....	74333312-01-301
Pineapple Cup/Holder .....	T5 .....	74333312-01-916		T7S .....	74333312-01-304
	T5S .....	74333312-01-918		T8 .....	74333312-01-300
	T6 .....	74333312-01-914		T8S .....	74333312-01-309
	T6S .....	74333312-01-919		T9 .....	74333312-01-301
	T7 .....	74333312-01-913		T9S .....	74333312-01-311
	T7S .....	74333312-01-907	Blade Set.....	T5 .....	74333312-01-100
	T8 .....	74333312-01-915		T5S .....	74333312-01-104
	T8S .....	74333312-01-925		T6 .....	74333312-01-101
	T9 .....	74333312-01-926		T6S .....	74333312-01-105
	T9S .....	74333312-01-927		T7 .....	74333312-01-102
Presser .....	T5 .....	74333312-01-023		T7S .....	74333312-01-106
	T5S .....	74333312-01-042		T8 .....	74333312-01-103
	T6 .....	74333312-01-013		T8S .....	74333312-01-107
	T6S .....	74333312-01-038		T9 .....	74333312-01-108
	T7 .....	74333312-01-007		T9S .....	74333312-01-109
	T7S .....	74333312-01-021	Cup Sensor.....		74333312-07-019
	T8 .....	74333312-01-002	Pineapple Sensor .....		74333312-07-016
	T8S .....	74333312-01-046	Fall-out Unit .....		74333312-01-960
	T9 .....	74333312-01-055	Main Key.....		N/A
	T9S .....	74333312-01-056	Waste Bin .....		74333312-07-002
Presser Safety Pin.....		74333312-02-016	Dolly for Waste Bin .....		101-204-00-001
Top Blade.....	T5+T5S .....	74333312-01-324	Cup Stand.....		8719326017327
	T6+T6S .....	74333312-01-326	Sensor Motion Motor .....		74333312-07-001
	T7+T7S .....	74333312-01-327	Swivel Caster.....		N/A
	T8+T8S .....	74333312-01-328	Caster .....		N/A
	T9+T9S .....	74333312-01-329	Main Switch .....		N/A
Bottom Blade .....		74333312-01-325	Electric Switch .....		N/A
Rosette Blade .....	T5 .....	74333312-01-303	Front Door (complete) .....		74333312-01-011
	T5S .....	74333312-01-307	Drain Grill.....		74333312-05-018 + 74333312-05-024
	T6 .....	74333312-01-302	PLC Unit .....		74333312-07-025
			Frequency Controller.....		N/A